



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,598	11/25/2003	Chi-Hung Shen	GP-303628	6024

7590 03/21/2006
Kathryn A. Marra
Mail Code 482-C23-B21
300 Renaissance Center
P.O. Box 300
Detroit, MI 48265-3000

EXAMINER

TRAN, HANH VAN

ART UNIT PAPER NUMBER

3637

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

1. This is the First Office Action on the Merits from the examiner in charge of this application.

Claim Objections

2. Claims 10-17 are objected to because of the following informalities: claim 10, line 1, "to support first structure" should be "to support a first structure". Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,722,646 to Soderberg et al.

Soderberg et al discloses a reconfigurable pallet that supports a structure 24 comprising all the elements recited in the above listed claims including, such as shown

Art Unit: 3637

in Fig 1, a pallet base 12; and a plurality of modular stanchions 20 that are secured to said pallet base and that are selectively positionable along x and y axes relative to a top surface of said pallet base, said modular stanchions each including a support element that has a height along a z axis that is transverse to said x and y axes, said support element supporting said structure, wherein said support element is movable along said z axis to adjust said height. Soderberg also teaches using a fluid cylinder to raise the height of the support element. In regard to a plurality of operation stages of claim 25, since Soderberg is drawn to "machine tools" operate on a workpiece held the support element, this is interpreted by the examiner to mean that a plurality of operation stages operate on the workpiece held on the support element. The differences being that Soderberg et al does not disclose the modular stanchions adhesively secured to the pallet base by an adhesive layer using a bonding pack, a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within the support cylinder to move the support element along the z axis, the method of assembling as recited in claims 18-24.

In regard to the modular stanchions adhesively secured to the pallet base by an adhesive layer using a bonding pack, it is well know in the art to use various, well known equivalent and commercially available securing means, such as screws, bolts, nails, magnets and adhesive layer to secure one object to another as a matter of engineering choice; therefore, it would have been obvious and well within the level of one skill in the art to modify the structure of Soderberg et al by having the modular stanchions secured

Art Unit: 3637

to the pallet base by a well known securing means, such as an adhesive layer using a bonding pack.

Since Soderberg also teaches using a fluid cylinder to raise the height of the support element, and since it is well known in the art to use either hydraulic or pneumatic to raise the support element, it would have been obvious and well within the level of one skill in the art to modify the structure of Soderberg et al by providing a hydraulic pump in fluid communication with said support cylinder and operable to adjust a hydraulic pressure within the support cylinder to move the support element along the z axis.

Since Soderberg et al, as modified, discloses all the elements recited in the method claims, it would have been obvious and well within the level of one skill in the art to perform the method assembly as recited in claims 18-24.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Monvavage, Binnard et al, Fox, Abrahamson et al, Ross et al, Varnau, Abita et al, and Onizuka all show structures similar to various elements of applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh V. Tran whose telephone number is (571) 272-6868. The examiner can normally be reached on Monday-Thursday, and alternate Friday.

Art Unit: 3637

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HVT
March 19, 2006



Hanh V. Tran
Art Unit 3637